CLAIMS

1. A high tensile cold-rolled steel sheet: consisting essentially of 0.04 to 0.13% C, 0.3 to 1.2% Si, 1.0 to 3.5% Mn, 0.04% or less P, 0.01% or less S, 0.07% or less Al, by mass, and balance of Fe and inevitable impurities; having a microstructure containing 50% or larger area percentage of ferrite and 10% or larger area percentage of martensite, and having 0.85 to 1.5 of ratio of intervals of the martensite in the rolling direction to those in the sheet thickness direction; and having 8 GPa or larger nano strength of the martensite.

2. The high tensile cold-rolled steel sheet as in claim 1 further containing at least one element selected from the group consisting of 0.5% or less Cr, 0.3% or less Mo, 0.5% or less Ni, and 0.002% or less B, by mass.

3. The high tensile cold-rolled steel sheet as in claim 1 further containing at least one element selected from the group consisting of 0.05% or less Ti and 0.05% or less Nb, by mass.

4. The high tensile cold-rolled steel sheet as in claim 2 further containing at least one element selected from the group consisting of 0.05% or less Ti and 0.05% or less Nb, by mass.

5. A method for manufacturing high tensile cold-rolled steel sheet, comprising the steps of: hot-rolling a steel slab consisting

essentially of 0.04 to 0.13% C, 0.3 to 1.2% Si, 1.0 to 3.5% Mn, 0.04% or less P, 0.01% or less S, 0.07% or less Al, by mass, and balance of Fe and inevitable impurities, into a steel sheet, followed by coiling at coiling temperatures ranging from 450°C to 650°C; cold-rolling the coiled steel sheet at cold-rolling reductions ranging from 30 to 70%; annealing the cold-rolled steel sheet by heating to a temperature range of [the coiling temperature + the cold-rolling reduction percentage x 4.5] - [the coiling temperature + the cold-rolling reduction percentage x 5.5] (°C); and cooling the annealed steel sheet to temperatures of 340°C or below at average cooling rates of 10°C/s or higher.

6. The method for manufacturing high tensile cold-rolled steel sheet as in claim 5, wherein the steel slab further contains at least one element selected from the group consisting of 0.5% or less Cr, 0.3% or less Mo, 0.5% or less Ni, and 0.002% or less B, by mass.

7. The method for manufacturing high tensile cold-rolled steel sheet as in claim 5, wherein the steel slab further contains at least one element selected from the group consisting of 0.05% or less Ti and 0.05% or less Nb, by mass.

8. The method for manufacturing high tensile cold-rolled steel sheet as in claim 6, wherein the steel slab further contains at least one element selected from the group consisting of 0.05% or less Ti and 0.05% or less Nb, by mass.